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ABSTRACT

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Cross-Sex and Same Sex Dominance in a Cooperative Group Task

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Footnote

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Abstract

This study examined dominance attempts of grade school children engaged in a cooperative task. Within each of three grade levels (K, 1, 3), 8 mixed-sex triads were randomly formed. Utilizing verbal indices of dominance, significant differences were found for cross-sex and same-sex attempts, by grade level and triadic composition. The results for K and grade 1 confirmed previous research which indicated that boys were more dominant than girls and attempted primarily to dominate other boys. However, with age, girls showed increasing verbal assertiveness toward boys as well as toward other girls, and by grade 3, their overall dominance attempts equalled that of boys. Implications of the findings for research in dominance relations are discussed.

Cross-Sex and Same-Sex Dominance in a Cooperative Group Task

Research on power relations between the sexes in childhood has yielded ambiguous results. In their summary evaluation of the literature on sex differences, Maccoby and Jacklin (1974) concluded that the evidence is equivocal with respect to dominance. Nevertheless, earlier in their discussion of the research, they stated that males tend to be the more dominant sex in the sense that they more frequently attempt to dominate one another and perhaps females as well. Block's (1976) reassessment of the evidence accumulated by Maccoby and Jacklin led her to question their inclusion of dominance among the "Open Questions." According to her reading of the same data base, the balance of the findings suggest a more pervasive sex difference in favor of male dominance than was implied in the original review.

More recent studies of children's dominance have been heavily influenced by ethological theory and have focused on the formation and stability of dominance hierarchies (McGrew, 1969: Omark, Omark & Edelman, 1975: Savin-Williams, 1976: Sluckin & Smith, 1977: Strayer & Strayer, 1976). As in the case of earlier studies, current research has left largely unexplored the issue of cross-sex power relations during childhood. Assessment of children's dominance behaviors typically has been reported without specifying the sex of the target. In addition, data on cross-sex relations after the preschool period are particularly scanty. During the elementary school years, unstructured encounters between the sexes are infrequent since since children's play groups are typically sex-segrated (Mussen, Conger, & Kagan, 1979). Boys perceive themselves and are perceived by girls as "tougher" i.e. more aggressive (Omark, Omark, & Edelman, 1975). It is not clear, however,

that boys attempt to assert more power than girls in face-to-face encounters between the two sexes. In one of the few experimental studies of elementary school children (Zander & Van Egmond, 1958), boys were found to be considerably more active and directive than girls in four-person groups, but the targets of their influence attempts were not specified. Even when stable dominance relations have been observed, the existence of such hierarchies does not imply a one-way flow of dominating acts from one sex to the other (Maccoby & Jacklin, 1974).

Taking into consideration sex of the speaker and sex of the target, this study examined dominance attempts of grade school children engaged in a cooperative group task. Dominance refers to attempts to direct or influence another child's activity. The major analysis employed verbal indices of dominance such as commands, suggestions, bargaining, and attention bids. Because of the cooperative nature of the task, the focus was on assertive rather than aggressive aspects of dominant behavior. The basic questions posed were: 1). Are dominance attempts directed primarily to members of the same sex or the opposite sex? 2). If differential same-and cross-sex patterns are observed, do they show developmental variations?

Method

Subject One hundred eight children, aged 5 to 9, enrolled in predominantly white, public elementary schools in a Boston suburb served as subjects. Approximately equal numbers of girls and boys were selected from three grade levels: 36 children each from kindergarten, first, and third. Chronological age in the kindergarten group ranged from 5;3 to 6;6 (M=5;9), in the first grade from 6;3 to 8;1(M=6;10), and in the third grade from 8;5 to 10;1 (M=9;2). Within each grade level, eight mixed-sex triads from the same classroom were randomly constituted. Since the data

were collected in the spring term of the school year, group members were acquainted with one another.

Procedure Each triad was observed in a room adjacant to the classroom. The children were assembled around a table and an equal number of plastic interlocking building blocks was distributed to each child. The group was instructed to work together to build a house of undefined dimensions. A green sheet of paper was placed on the table and was designated as the land on which they were to build the house. The children were encouraged to talk as much as they wished and to tell each other what they were doing.

Conversations were tape-recorded. In addition, running narrative accounts (taped and written) of the children's behavior were made by two observers. Particular attention was paid to who was speaking to whom, as well as to gestures, facial expression, and motor behavior.

The conversations were transcribed verbatim and coordinated with the running narrative accounts. Since grade and sex were major variables under investigation, several precautions were taken in preparing the transcriptions for the coding phase: letters of the alphabet were substituted for names, pronouns revealing gender were neutralized, and information on grade level was deleted.

The conversations were divided into utterance units, defined as a meaningful unit of speech ending in a pause or separated by another child's speech. In cases where an utterance was partially repeated or slightly rephrased, the repetition was included with the first utterance (e.g., /I got I got a big one/). Full thoughts which were repeated were scored separately (e.g., /I mean the yellow one/ the yellow one!/). When there was a choice in parsing utterances, the smallest unit was used.

Utterances were classified by two pairs of judges into dominance

categories adapted from Gellert (1961, 1962). Verbalizations were scored from the point of view of the speaker rather than the recipient of the attempt. Units were coded for attempt only, not whether the act was successful or unsuccessful in eliciting a response. An utterance was scored only when it was directed toward another child. Monologues and speech to the experimenter were not scored.

Dominance categories:

1. Command: a direct request, usually in the imperative("Don't just sit there.")
2. Threat: expresses intent to hurt or to retaliate against listener (Give it to me or I'll wreck your house")
3 Suggestion: indirect request that a thought, desire, or problem be considered("How about making another window here?")
4. Need: assertion of a desire for an object or for help, or opinion about another child's or the group's need. May be expressed positively or negatively("You don't need another blue one.")
5. Statement of rules: assertion or clarification of the conditions under which the task is being carried out ("We gotta build it together.")
6. Bargain: request for an object or action through a trade, agreement, or barter ("I'll give you two red ones if you give me a blue.")
7. Instruction: request that an act be performed in a specified way ("It goes like this.")
8. Explanation: rationalization, clarification, or justification ("If we push this in, the whole thing will tumble down.")
9. Positive evaluation of self or task: expression of intent to enhance speaker's ego, the context and tone indicating pride and competence in achievement, task, or knowledge ("We made a good house.")
10. Negative evaluation of the task or other child: expression of intent to

derogate another child's ego, the context and tone indicating devaluation of achievement, task, or knowledge ("That's a stupid house you're making.")

11. Positive evaluation of other child: expression of intent to enhance another child's ego, the context and tone indicating approval of another child's achievement or competence ("Your things coming out pretty good.")
12. Accusation: expresses speaker's belief that a rule was violated ("You stole mine.")
13. Attention bid: solicits the listener's attention ("Hey, you guys.")

To determine intercoder reliability, the following formula was used: (U-D)/(U+1/2X), where U=total number of utterances designated by both coders, D= total number of disagreements between coders on the same utterance, and X= total number of utterances scored by one coder but not the other (Fleiss, Cohen & Everitt, 1969). Intercoder reliability scores for two sets of coders scoring 4,267 utterances ranged from 88% to 96%.

Each dominance attempt was categorized according to the sex of the speaker and of the intended target: female to female (FF), female to male (FM), male to male (MM), and male to female (MF). Intended targets were determined by the speaker's use of another child's name as an attention marker and by the observer's notations in the running narrative accounts. When an utterance was directed to both of the other children in the triad, credit was given for both intended targets.

Frequency of dominance attempts was computed by each possible combination within a triad, resulting in three scores for each triad: FF, MF, FM in female-majority triads and MM, MF, FM in male-majority triads.

Results

A chi square test of independence was computed for frequency of utterances classified as dominance attempts by sex of speaker and of target (MM, FF, MF, FM) and by grade level (kindergarten, first and third grade) for two kinds of triadic groupings (MMF, FFM). The results were highly significant for both types of triadic compositions (MMF: $X^2 = 31.32$, $p < .001$; FFM: $X^2 = 28.40$, $p < .001$) with the major differences occuring between first and third grade (see Figure 1).

A post hoc analysis of the 3x3 contingency table (Marascuilo, 1971) revealed that in male-majority triads at kindergarten and first grade, the greatest number of utterances classified as dominance attempts were made by boys and were directed toward other boys. Similarly, attempts of boys toward girls were more frequent than the reverse. In the female-majority triads, boy's utterances classified as dominance attempts were also more frequent toward girls than the reverse. Attempts by girls toward other girls were the least frequent of the possible speaker-target combinations.

At third grade this pattern changed so that, in the male-majority triads, utterances classified as dominance attempts by girls toward boys were slightly more frequent than the reverse or than attempts of boys toward each other. Similarly, in the female-majority triads at the third grade level, attempts by girls toward boys were slightly more frequent than of boys toward girls or of girls toward each other. By the third grade, then, utterances classified as dominance attempts were distributed fairly evenly across all speaker-target possibilities. The general trend between kindergarten and third grade was for boys to make proportionally fewer cross-sex dominance attempts in mixed-sex groupings and for girls to make more attempts. With increasing age, same-sex dominance increased for girls and decreased for boys.

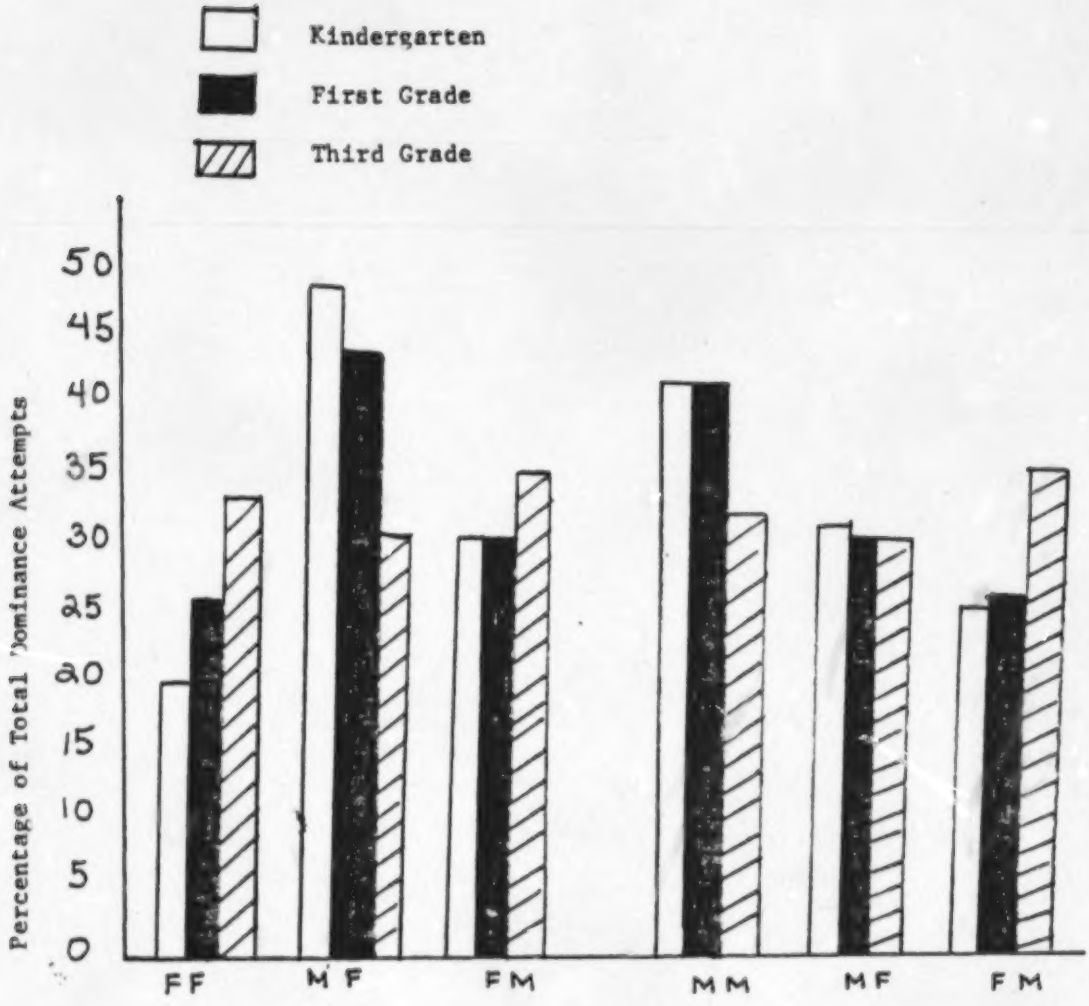

Figure 1-Dominance attempts according to sex of speaker/target, grade, and triadic composition

For all children, commands, instructions, and suggestions were the most frequently used categories, accounting for 60% of the utterances considered to be dominance attempts. An analysis of the frequency with which they were classified into individual dominance categories showed no significant differences by age, sex of speaker/sex of target, or by group composition.

Discussion

The striking finding from this research is the change with age in the pattern of dominance attempts between and across the sexes. The data for the kindergarten and first grade confirm previous observations that boys are more dominant than girls and that their attempts at control are primarily directed toward other boys. This finding holds true even in this study where dominance attempts are verbal and generally nonaggressive. However, by grade three, girls in these mixed-sex groups were attempting to direct, to guide, and to influence boys as well as other girls as often as the boys were. Thus, while the findings tend to be consistent with both folklore and research on male dominance, they do not provide robust support for the sex role stereotype of passive girl vis-a-vis active, assertive boy.

Although our findings fill in some of the gaps in knowledge about cross-sex and same-sex interactions beyond the preschool period and report data on the use of dominance attempts in cooperative group settings, they leave open the question of the source of the differences at the grade levels studied here. The data suggest that the verbal dominance categories used in this study are one aspect of broader developing social skills. As children mature they are more able to cooperate in group tasks, both girls and boys making suggestions, giving instructions and ordering one another around. Further research is planned to determine

whether the verbal assertiveness of girls in cooperative tasks continues to increase as they grow older. In addition, the issue of how verbal dominance attempts are related to dominance hierarchies and success in dominating and directing other children's behavior will also be investigated.

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